

REMARKS

Claims 1-8, 13-15, and 17-20 remain in the application. Claims 8, 13-15 and 17 have been amended. Claims 9-12 and 16 have been canceled.

35 U.S.C. §102 rejections

Claims 8-13 and 15-18 are rejected under 35 U.S.C. §102(b) as being anticipated by Jones (US # 2,974,518). Applicants respectfully traverse this rejection.

Claim 8 includes a weighing system that is capable of continually sensing load against the conveyor and a calibration system for the weighing system that is capable of applying a reference load to the weighing system without interrupting the movement of material or the ability of the weighing system to sense load against the conveyor. The term "load" is clearly defined in the specification on page 11 lines 6-8 as being produced from material carried by the conveyor belt. It is also clearly defined in the preamble of claim 8, referring to material carried by the belt. It is clear, that the load on the belt is produced by material carried thereby. Therefore the weighing system senses the load of material on the conveyor belt. Also included in

claim eight is a calibration system employing a reference load which is specifically claimed as being added to the load from material carried by the belt. Thus, there are two measured conditions, load from material carried by the belt and load from material carried by the belt with the addition of a reference load.

Jones does not teach this structure, and cannot accomplish its goals. Specifically, Jones employs weights carried by a frame 16 having a wheel 28 which is pivoted downwardly to contact the conveyor belt. As stated in column 4, lines 39-41, the "quantity of the first weight 32 are chosen such that the total vertical force applied to the empty conveyor belt". As can be seen, Jones teaches a reference weight being applied to an empty conveyor belt. In fact, since frame 16 includes a wheel intended to contact the top surface of the conveyor belt, a load on the belt cannot be sensed concurrently with the reference weight since the reference weight prevents having a load on the conveyor. The structure of Jones allows only the measure of a load on the conveyor belt, and the measure of a reference load on the conveyor belt. The measurement of a load and a reference load cannot be accomplished by Jones. Therefore, Jones does not and cannot teach or suggest the apparatus of claim 8. Since each and every element of claim 8 has not been disclosed by Jones, there can be no anticipation. Withdrawal of the rejection is respectfully requested.

Claim 13 depends from claim 8 and is allowable for the same reasons.

Claim 15, as amended, specifically claims a reference load being supported by a pivoted test beam underlying the upper run of the conveyor. This is clearly not taught by Jones, which teaches a frame 16 with a wheel 28 which is carried above the conveyor belt and movable to a position where in the wheel engages the top surface of the conveyor belt. Since each and every element of claim 15 has not been disclosed by Jones, there can be no anticipation. Withdrawal of the rejection is respectfully requested.

Claim 17 and 18 depends from claim 15 and are allowable for the same reasons.

Claims 1-3, 7-8, 14, 15, 19 and 20 are rejected under 35 U.S.C. §102(b) as being anticipated by Wilson et al (US # 3,976,150). Applicants respectfully traverse this rejection.

Claim 1 includes a comparator coupled to the weighing system to compare a continually sensed load from the weighing system with the continually sensed load combined with a reference load from the calibration system. The term "load" is clearly defined in the specification on page 11

lines 6-8 as being produced from material carried by the conveyor belt. Thus, the comparator is limited to that which can compare a sensed load with a sensed load combined with a sensed reference load. This is a positively claimed limitation to the comparator of claim 1. It is well established that applicant may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in In re Swinehart, 439 F.2d 210, 213-14, 169 USPQ 226, 228-29 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought. With this in mind, the comparator of claim 1 is clearly defined.

Wilson, discloses a conveyor load measuring system and method of calibrating same. In this system, Wilson teaches applying calibration weights to an empty conveyor belt. Additional weights are added for each revolution of the empty belt, to generate a sufficient database for comparison of a load. Wilson specifically teaches adding calibration weights to an empty conveyor belt. Nowhere does Wilson teach or suggest adding calibration weights to a load carried by the conveyor belt. From this, it is clear that Wilson does not teach comparator comparing a load with a load plus a reference load. Referring specifically to

column 5, lines 56-59, "[a]t periodic intervals selected by the operator during operation of the conveyor, the load to the conveyor belt 12 is cut off and the system is recalibrated by running the conveyor belt empty, adding the calibration weights 14 in succession". There is no teaching our suggestion of a comparator as claimed in claim 1 specifically, the comparator as claim in claim 1 compares load and load in combination with a reference load. Wilson includes a comparator which simply compares reference loads of an empty conveyor belt. Since each and every element of claim 1 has not been taught by Wilson, there can be no anticipation. Withdrawal of the rejection is respectfully requested.

Claims 2, 3, and 7 depends from claim 1 and are allowable for the same reasons.

Claim 8 claims a reference load supported by a pivoted test beam wherein the pivoted test beam is pivotable between a first position and a second position displacing the reference load and a sensor capable of producing test load stimulus in response to displacement of the pivoted scale by load applied against the conveyor and displacement of the reference load. Wilson does not teach a pivoted test beam supporting a reference load. Wilson teaches a bracket extending upwardly from the weighing apparatus for receiving test weights lowered thereon. No suggestion or teaching of

a pivoted test beam is provided. Since each and every element of claim 8 is not taught by Wilson, there can be no anticipation. Withdrawal of the rejection is respectfully requested

Claim 14 depends from claim eight and is allowable for the same reasons.

Claim 15, as amended, specifically claims a reference load supported by a pivoted test beam underlying the upper run of the conveyor. This is clearly not taught by Wilson. Since each element of claim 15 is not taught by Wilson, there can be no anticipation. Withdrawal of the rejection is respectfully requested.

Claim 19 depends from claim 15 and is allowable for the same reasons.

Claim 20 claims comparing a test load stimulus with a load stimulus. The test load stimulus a combination of the load against the conveyor and the reference load against the weighing system. The load stimulus is commensurate with the load against the conveyor prior to the application of a reference load. Wilson does not teach or suggest the comparison of load values with load values in combination with reference loads. Wilson specifically teaches comparing a reference loads to form a set with which load data is

compared. Nowhere in Wilson is load data combined with a reference load and in compared to load data. Since each and every element of claim 20 is not taught by Wilson, there can be no anticipation. Withdrawal of the rejection is respectfully requested.

35 U.S.C. §103 rejections

Claims 1-7, 14, and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jones (U.S. 2,974,518) in view of Wilson et al (U.S. 3,976,150). Applicants respectfully traverse this rejection. Claims 1-7, 14, and 19 each claim a controller capable of comparing the load stimulus data to the test load stimulus data. The comparison of the data is not taught or suggested by either of the references as stated previously. Again, stimulus data is data on the load applied to the conveyor belt, and the test load stimulus data is load stimulus data in combination with a reference load. Neither Jones nor Wilson teach a measurement which includes a load on the conveyor belt in combination with a reference load. Indeed, to each specifically teaches away from this proposal, stating that an empty conveyor belt receives the reference weights for calibration. This is directly opposed to the claims of the

present invention, and therefore cannot be said to suggest same. Withdrawal of the rejection is respectfully requested.

SUMMARY

Since none of the applied references disclose apparatus teaching each and every element of applicant's claimed structure and since none of the applied references can achieve the functions of the present invention, applicant believes that the claims are in condition for allowance.

In view of the foregoing, it is submitted that each of the claims is in condition for allowance. Withdrawal of the rejections and allowance of the claims is respectfully requested. Should there be any questions or remaining issues, Examiner is cordially invited to telephone the undersigned attorney for a speedy resolution.

Respectfully requested,



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